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A new species of clearwing moths from Greece:

Bembecia fokidensis spec. nov.

(Lepidoptera, Sesiidae)

by

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Abstract: A new species *Bembecia fokidensis* is described. All of its specimens were collected with the help of a pheromone trap in Greece in the southern part of Thessalia, Fokida and Mt. Parnassus. Female and host plant are unknown.

Bembecia fokidensis spec. nov.

Material: Holotype ♂: Greece, Domokos, 20.VII.1990, leg. et coll. TOŠEVSKI. Paratypes: 7 ♂♂, St. Ekaterini, 17.VII.1990; 4 ♂♂, Eleonasi-Varioni, 18.VII.1990; 5 ♂♂, Amfissa, 19.VII.1990; 9 ♂♂, St. Ekaterini, 20.VII.1990; 3 ♂♂, Domokos, 20.VII.1990; all leg. TOŠEVSKI, in coll. I. TOŠEVSKI, K. SPATENKA (Prague) and U. EITSCHBERGER (EMEM).

Description of holotype (colour-plate XVIIIb, Fig. 1a):

Head: Forehead grey with a white strip above the eyes. Antennae shiny black, ventrally brown. Vertex black. The first segment of the labial palpi is yellow, ventrally and distally black. The second segment is dorsally pale yellow, ventrally black with long spiny protruding scales. The third segment dorsally yellow and ventrally blackish yellow. The postorbital area is yellow. The proboscis is stunted and nonfunctional.

Thorax: Black. The tegula is black, along the inner edge yellow. The patagia is shiny black. The mesothorax is black with a yellow spot in the middle. The metathorax is black with white and whitish-grey scale-like hairs. The pleura are yellow with a group of yellow scales on the mesothorax area. The procoxae are black along the inner edges with pale yellow scales; the femora is black with some yellow on dorsal parts, tibia yellow. The coxae and femorae of the hindlegs are black, the tibiae are yellow with a distinct black ring at distal end; the tarsi are yellow with black scales.

The alar expanse of the forewing is 19 mm. The costal margin is black with single reddish-orange scales. The ATA transparent area spreads from the distal spot up to the wing base. The cubital vein is black and abundantly covered with reddish-orange scales. The PTA transparent area is found along the inner half, the external half is covered by reddish-orange scales. Anal edge is reddish-orange. The wing base is shiny black. The ETA transparent area between the veins R₃-Cu₁ is almost oval, composed of 5 fenestrae. The apical field is yellow, covered on the outward side with black scales in the shape of narrow rectangles. The discal spot is rectangular, the inner half black, the external half reddish-

orange. Hindwings are transparent, the discal spot is narrow triangular and sprinkled with reddish and black scales.

Abdomen: Black, the distal edges of segments nos. 2, 4 and 6 have broad yellow rings dorsally. Segments nos. 3, 5 and 7 are diffusely sprinkled with yellow spots. The anal tuft is black on the outer side with clusters of yellow scales in the middle. On the ventral side, the distal edges of segments nos. 2 and 3 are narrow yellow only along the sides. Segments nos. 4, 5, 6 and 7 are hemmed in yellow throughout the whole length. The anal tuft is yellow, abundantly tainted with black scales.

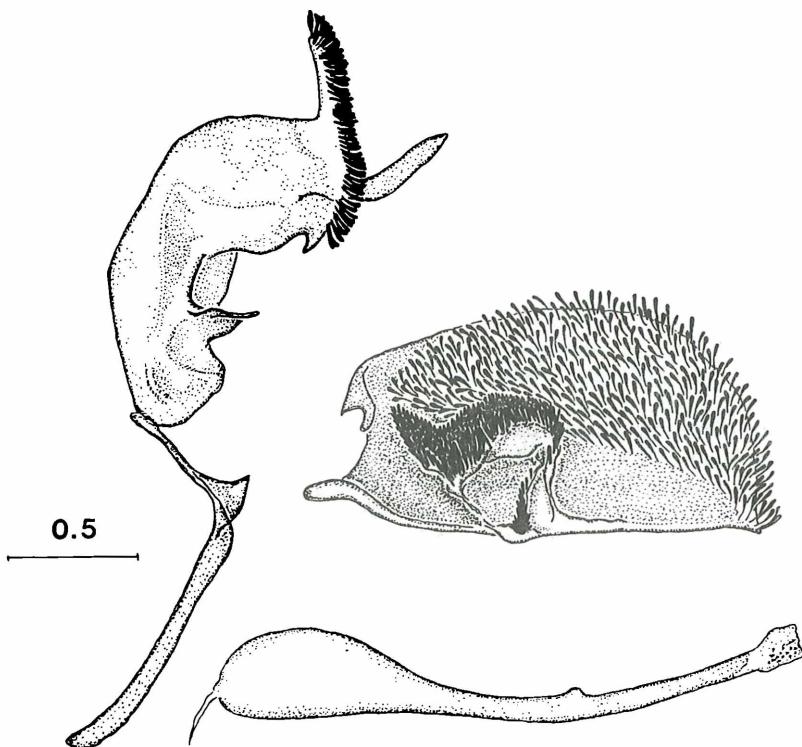


Fig. 2: *Bembecia fokidensis* spec. nov., Paratype ♂, Greece, Eleonasi-Varioni, 19.VII.1990, leg. et coll. TOŠEVSKI. a) uncus-tegumen complex; b) valva; c) aedeagus.

Genitalia of the male (Fig. 2): The uncus is extended, the scopula androconialis is relatively short. The ventro-caudal end of the uncus is pointed and twisted. The gnathos is developed with a modified structure, the medial branch is short, folded inwards and is split into two branches which create a cranium-like recess in the anterior part. The cranial roof,

when viewed from the side, is extended into the shape of a peak. The lateral branches are not very distinct.

The valva is trapezoid oval and the crista sacculi has a complicated structure with two distinct, mutually connected reefs (bicrista). The smaller transversal part of the crista is covered with setae up to its juncture with longitudinal crista. The longitudinal crista is densely covered with setae in the shape of a "S". The aedeagus is slender and slightly twisted medially and ventrally has barely noticeable gnarls.

Variability expresses in size and body coloration. The alar expanse ranges within the known specimens from 16-20 mm. The forewings can be darker, among some specimens entirely black except for the anal edge, which is always more or less reddish-orange. The variability of the abdominal yellow rings is distinct. In some of the specimens the number of yellow rings is reduced (colour-plate XVIIIb, Fig. 1b).

Differential diagnosis: *B. fokidensis* spec. nov. is similar to the species of the *B. megillaeformis*-group, and especially to *B. puella* LAŠTUVKA, 1989. In the newly described species the apical area of the forewings is broadly covered with yellow scales whereas the hind edge is intensively reddish-orange. *B. megillaeformis* has a narrow apical field and *B. puella* has an almost reduced apical field and the hind edge of the forewings of both species are light yellow-orange.

The differences in the genitalic structure are distinct. *B. megillaeformis* and *B. puella* have a more or less homogenous morphology of their genitalia, which happens to be the main characteristic of this group. Among these species the ventro-caudal end of the uncus (socii) is oval. The medial branch of the gnathos is more or less bulged in the hind part. The dorsal edge of the valva is bulged in the distal part. The transversal (smaller) crista is scarcely covered by setae. In *B. fokidensis* spec. nov. the ventro-caudal side of the uncus (socii) is more or less peak-shaped and the medial branch of the gnathos is folded inwards. The dorsal edge of the valva is rounded towards the apex and the transversal crista is densely covered with setae.

Bionomy: The host plant of the newly described species is unknown. The species is frequent on those sites, where they have been collected. All of the specimens have been caught with the help of pheromone traps during the morning between 8.00 and 11.00 hour. The habitats, where the species has been collected, range from typical mediterranean scrub-land about 100m up to mountainous meadows at 1600m (mountain saddle Eleonasi-Varioni). This suggests a wide distribution of this species in southern Greece. In the habitats of *B. fokidensis* spec. nov. the following species of Sesiidae have been collected: *Bembecia uroceriformis* (TREITSCHKE, 1834), Amffisa; *B. pavicevici* TOŠEVSKI, 1989, Amffisa, Eleonasi-Varioni, Domokos, St. Ekaterini, Gravia; *B. albanensis* (REBEL, 1918), Eleonasi-Varioni; *B. ichneumoniformis* ([DENIS & SCHIFFERMÜLLER], 1775), Eleonasi-Varioni; *Chamaesphecia doleriformis* (HERRICH-SCHÄFFER, 1846), Eleonasi-Varioni; *Tinthia brosi-formis* (HÜBNER, [1813]), St. Ekaterini. Eleonasi-Varioni.

Literature

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LAŠTUVKA, Z. (1989): *Bembecia puella* sp.n. aus der Slowakei (Lepidoptera, Sesiidae).
Scripta Fac. Sci. Univ. Purk. Brun. 19:85-92.

Colour-plate XIXb (p. 373):

Fig. 1: *Bembecia fokidensis* spec. nov.:

- a) Holotype, Greece, Domokos, 20.VII.1990, leg. et coll. TOŠEVSKI
- b) Paratype, Greece, Eleonasi-Varioni, 19.VII.1990, leg. et coll. TOŠEVSKI.



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